北海道に普通に産するチョウザメ

大瀧圭之介

THE COMMON STURGEON OF HOKKAIDO.

BY

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During the months of July and August young Sturgeons of about 4-5 cm long and, later in the season, larger and full grown examples of 170 cm in length are common in the fish market of Sapporo. They are chiefly caught in the large rivers of Ishikari and Teshio of Hokkaido, and they are of one kind. Of these there are in the stuffed of the College of Agriculture, the Tohoku Imperial University, three large stuffed specimens of 170-180 cm in length and many other small ones of different sizes preserved in formalin. One of the large specimens is female, which is a specially good example being not deformed as it is often the case in stuffed specimens.

The head and cheeks bony and rough; operculum rugose; snout not very short and rather rounded; the skin between the series of the scutes above and below, is profused with irregular small ossifications, the larger ones being stellate in the anterior dorsal portion. Head 4 or $3\frac{5}{6}$, depth $7\frac{2}{3}$–8 times in the body, but the head in the young is generally larger and contained 3 times in the body; eyes nearly median in the head of the full grown specimens, while in the young the preorbital region is a little longer; barbels simple and cylindrical, and they are nearer to the eye than to the tip of the snout; the transverse aperture of mouth is equal to the distance from the upper lip to the barbels. The dorsal scutes 10-11; the lateral scutes 33-34 on the right, 31-33 on the left; the ventral scutes 7-9 on each side. Dorsal fin III32–III37; the anal III24–VI20. The origin of the anal fin is below $\frac{1}{3}$-$\frac{2}{3}$ posterior of the dorsal fin and it is also preceded by 2 or 3 bony tubercles. The vertical fins in the older fish are preceded by 3 or 4 short tubercles instead of fulcrum. The scutes are radiating and not very large, each with a prominent ridge and distant. There are three oblong plates behind the dorsal fin, the middle one being larger; there are also 3 or 4 plates behind the anal vent and one or two behind

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the anal fin. These latter are not unfrequently wanting in young specimens. The upper caudal lobe $1\frac{5}{6}$ times in the head. In young specimens of 25 cm–36 cm, the posterior margin of the tail is straight; the pectral $1\frac{2}{3}$ times in the head. The colour is greyish blue or light chestnut.

Of the Japanese sturgeon two species, *Asipencer mikadoi*, Hilgendorf, and *A. kikuchii*, Jordan and Snyder, in the Proc. U.S. National Museum, vol. XXX, pp. 397–398, 1906, are recorded. Besides these a third species closely related to *A. mikadoi* is *A. güldenstädtii*, Brandt of Russia.

The common species of Hokkaido in question seem to be identical with *A. güldenstädtii* in its rounded snout and small irregular stellate ossifications, while the other data such as the number of scutes, the proportional length of snout and depth in the body and the fin formula have their affinity to *A. mikadoi*. The number of scutes in each series of five, and fin rays, taken as specific distinctions are variable in different ages and even so in individuals of the same size. The fin rays split up into two, four or sometimes into three, while the anterior rays often fuse together to present two or three spines more in addition when the fish grows older. In young specimens the dorsal scutes are horny with prominent claw-like spines, the 4th being the largest, and decreasing in size both anteriorly and posteriorly, and in the lateral series a large portion of posterior scutes is simply a dermic papillae. Snout in young specimens is short or shortish and bluntly pointed. Of young specimens we notice that in some of them the snout is a little longer than others and the scutes are lesser, while in others the snout is a little broader at its base and shortish with blunt point. The aperture of the mouth is even with the distance of the mouth and the barbels, and $1\frac{1}{2}$ times in the rostrum before the barbels. This difference among the same species may possibly be a sexual one which could not be determined at the time. I reserve the final determination until a further examination can be made of both sexes in fresh fish.

Another sturgeon, a single specimen contained in the museum, seems to be quite a different fish, of which I shall hope to have another opportunity to describe, when I have more specimens to compare with it.

The tabular accounts of the species are as follow :

Note :—

(1) and (2), the figures with the plus marks between show that the next figures are the number of an unossified dermal papilla, and those with the same mark before or after or the plus alone, show that there is present an imperfect plate or two.

(3), the spines are indiscernible.

The specimens in the table are grouped into A, B, B′ and C according to the sizes and their probable age. The specimens in the group A are no older than two months except the last one which is the second year, while those in B and B′ groups are possibly in the third year. Those in the group C being matured and perhaps the largest.

I beg here to express my best thanks to Prof. S. Hatta of the College of Agriculture, the Tohoku Imperial University, Sappro, for his kind advice and courtesy.

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	Group A								Group B							
Total length in cm without the caudal fin	6 2/5	7	7 2/5	8	9	8	8	23	37	400 1/2	37 1/2	39	34 1/2	42	37 1/2	
Length of the upper lobe of the caudal fin	1 1/2	1 2/5	1 2/5	2	2	2	5 2/5	5 2/5	12	9	7 1/2	7	7 1/2	12	7 1/2	
Dorsal Scutes	10	10	10	10	10	11	9	9	11	11	11	11	11	10	12	
Lateral scutes, right 1	21+12	32	31	29	34	31	32	31	33+	34+	32+	33+	33	31+	32	
„ „ left 2	33	22+11	33	31	34	32	31	31	34	33+	33+	34	33	31	30	
Ventral scutes, right	8	8	8	7	7	7	6	5	+7	8	+7	—	8	+6	8	
„ „ left	6	8	8	7	7	6	7	6	+5	8	+7	—	8	+6	8	
Scutes behind the dorsal fin	—	2	3	2	2	1	1	1	1	1	1	1	1	1	+1	
„ „ „ anal fin	—	—	3	—	1	4	3	2	1	1	1	1	2	—	2	
„ „ „ anal vent	3	—	2	2	4	4	3	3	3	4	4	+3	4	+2	+3	
Dorsal fin	III42	42	42	III40	45	41	III38	III39	III39	?II46	III43	III40	III37	III37	II41	
Anal fin	33	32	33	28	27	29	—	26	III28	?30	III26	III32	III26	II27	II27	
Head in the body without the caudal fin	3 1/10	3	3	3	3	3	3	3	3 1/9	3	3 1/12	3 1/10	3 1/7	3	2 2/3	
Depth	7 1/4	6 1/2	7 1/3	6 3/4	7 1/2	7	6 1/8	8 1/8	9	9	8	6 2/5	7 2/3	8814	6 1/2	
Eye in the snout	3	3 1/2	3 1/2	4	4	4	3	6	6	6 1/2	6 1/2	6	5	6	6 1/2	
Eye in the post orbital region	2 1/4	2 1/2	2 1/2	2 2/3	3	2 3/4	2 1/3	4	4	4	4	4	4	4	4	

	Group B′						Group C		
Total length in cm without the caudal fin	36	39 1/2	30	33 1/2	33	34 1/2			
Length of the upper lobe of the caudal fin	7 1/2	8 1/2	—	8 1/2	9	7 1/2	139	145 1/2♀	149 1/2
Dorsal scutes	9	9	10	9	10	9	24	24 1/2	24
Lateral scutes, right 1	33+	30	32	33	32	34	11	11	10
„ „ left 2	32+	30+	32	35	31+	34	34	34	33
Ventral scutes, right 1	7	+5	8	7	+5	6	35	31	34
„ „ left 1	7	6	7	7	6	6	7	7	9
Scutes behind the dorsal fin	1	+	+	+	—	1	8	7	9
„ „ „ anal fin	1	1	+	2	1	1	3	+2+	2
„ „ „ anal vent	5	4	+2	+3	+3	+3	3	4	5
Dorsal fin	—	IIII100	II38	III411	III400	III38	2	2	1 1/2
Anal fin3	—	?30	28	II25	II25	II24	III36	III37	VII32
							III24	28	VI20
Head in the body without the caudal fin	3 1/7	3	2 1/9	3	3 1/3	3	about 4	3 5/6	—
Depth	7 1/6	8 1/2	7	7 2/3	7	6+	8	7 2/3	—
Eye in the snout	5 1/3	7	6	6	7	6	8	median	median
Eye in the post orbital region	4	5	4	5	4	4	—	—	—

摘　　要

毎年七八月の頃に至れば、札幌市魚市場にチョウザメあり、其大さ一尺二三寸以上一尺七八寸のもの多し、其體色は背部は灰青色或は淡褐色にして、腹部は無色なり、之れ即ち幼魚なり。冬期に至れば五尺以上五尺八寸位の老成魚あり、皆天鹽川或は石狩川にて漁獲するものなりと云ふ。本學附屬博物館に老成魚を剝製して備付あるもの三尾あり、内一尾は雌魚にして其形狀は申分なく保存されあり。又フヲマリン液に貯藏しある標本少なからず、其大さ貳寸五六分の初年生魚より一尺七八寸の三年魚多數なり。

此の普通なるチョウザメは何れの種なるべきかを知らんとて、之を詳細に實査し而して諸書に就て考察せり。

歐米の魚學者が本邦産チョウザメに就て記述したるものに二種あり。其一はヒルゲンドルフ氏か初て記述したるミカドチョウザメ (Asipencer mikadoi, Hilgendorf) にして、次はジョルダン及スナイダー兩氏が相州三崎産の一尾に就て記載したるキクチチョウザメ(A. kikuchii, Jordan & Snyder) なり、而して此二種類を類別する特徴は、背鰭及臀鰭の長短と、硬鱗の數、殊に左右兩側の鱗數の增減を以て種別し、其他は大同小異なり。

又本邦産の此二種類に近似したるものなきやと云ふに、露西亞に産すると云ふ A. güldenstädtii, Brandt は、ギュンテル氏目錄に依れば、以上述べたる特徴と較々相類似し、只だ頭形及其吻狀に於て前の二種と異なれり。

前に述へたる老幼多數の標本に就て實驗するに、鰭條數及背腹に縱走せる五列の硬鱗數、又は前面吻部の長短に少しの差異あるは魚の年齡に依り、又は個體にても之れあり(別表參照)。而して頭形吻狀も、乾製標本に於ては著しく縮少するを免れず。

蓋しチョウザメ類を種別するに以上の點を主要とし、少くも其

一とせる鰭條及硬鱗の數に差異あるを免れずとすれば、北海道普通のチョウザメは其鰭條及硬鱗數に於て、ミカドチョウザメ及キクチチョウザメに相近しと雖も、其頭形及吻狀に於ては寧ろ露西亞産 A. güldenstädtii に類似す。即ち當地に普通なるものは、吻端較々圓く少しく長くして前述二種の如くならず、剝製保存の老成雌魚に於て猶ほ然り、前二種は其の記載に依れば、吻端短形にして尖れりとせり、然るに露西亞産のものは總ての記載に吻端圓狀なりと云ふ、故に當地通普のものは露西亞産の A. güldenstädtii に相同しと考定せんとす。

別に又三年生位の標本にて、吻端少しく長く伸出し、硬鱗の數も常に少きものあれとも、此差は同種類中或は雌雄に依り生するものならんか、玆に疑を存して後の確定を待つ。又別に體長一尺三寸位、吻狀前種類と全然異觀を呈し、圓形にして甚だ短く、硬鱗又粗大、一見他と別なるものあり。猶ほ多數同一種のものを得て詳査の上之を記載すべし。

明治四十年九月　　大瀧圭之介